

REMARKS

The Office Action dated October 20, 2004 has been thoroughly reviewed and the claims hereby amended in a manner which is submitted to place the same into condition for the receipt of a Notice of Allowance. Reconsideration and allowance of all of the claims are respectfully requested on the basis of the amendments and remarks made herein.

The Claims

Claims 1-20 are being prosecuted in the present application.

Independent claims 1, 4 and 14 are hereby amended to respectively include the recital of, *inter alia*, the open member and apron rail generally “***extending around the motor of the motor vehicle***” and “***include a pair of wheel wells between the bulkhead and the depending front portion coupled to the bulkhead.***”

The Present Invention

The present invention is directed towards an apron assembly for a motor vehicle having a modular front end. Modules of the vehicle, including the exemplary apron assembly, are preassembled and attached to a bulkhead having a plurality of integrally formed attachment mounts (see Applicants’ disclosure at paragraph [0051] stating that, “[t]he various assemblies 100-400 are independent of one another or ‘functionally decoupled’ from one another and are generally interrelated by their connection to the bulkhead assembly 100, which provides the structural support for the other assemblies 200-400 [drive train assembly 200, crash energy absorption assembly 300 and apron assembly 400]”). Accordingly, the bulkhead “serves as the base structural component that supports the drive train assembly 200, the crash energy absorption assembly 300, and the apron assembly 400” (Applicants’ disclosure, paragraph [0052]; Figures 1-3 and 20).

The apron assembly includes a substantially C-shaped unitary apron member having a depending front portion and at least one integrally formed accessory attachment mount for mounting at least one engine accessory, such as a radiator and cooling fan assembly. The apron member is attached to a substantially C-shaped apron rail which generally ***extends around the motor*** of a vehicle and ***attaches back at the bulkhead*** unlike conventional aprons which attach to side frame members in front of the motor. The apron member and rail extend back to the bulkhead and ***include a pair of wheel wells between the bulkhead and the depending front portion coupled to the bulkhead.***

Accordingly, the claimed apron assembly comprises a module of the front end of the motor vehicle which is effectively decoupled from the remainder of the vehicle (*e.g.*, the passenger compartment) such that, in the event of an accident, crash energy and damage is isolated within that module.

Claim Rejections

Rejection of Claims 1,3,4,6-9,12-16,19 and 20 Under 35 U.S.C. § 102(b)

The Examiner rejects claims 1,3,4,6-9,12-16,19 and 20 under 35 U.S.C. § 102(b) as being anticipated by 6,216,810 (Nakai et al.).

The Nakai et al. reference fails to teach several of the elements of the claimed invention and, therefore, does not anticipate it under 35 U.S.C. 102(b). Specifically, Nakai et al. does not teach or suggest a bulkhead within the context of the present invention. Reference 9 of Nakai et al., which the Examiner likens to the claimed bulkhead, is in fact a “pair of left and right front end fender reinforcements 9” (emphasis added) (column 2, lines 48-50; Figure 1). At best, Nakai et al. teaches the front end panel 1 “disposed between a pair of left and right front side members 7 of the vehicle, is mounted on the front side members 7, and is fixed to a pair of left and right front end fender reinforcements 9” (emphasis added) (column 2, lines 45-50; Figure 1). The Nakai et al. side members of the vehicle frame 7 and fender reinforcements 9 teach away from the claimed **bulkhead** of the present invention which eliminates such conventional frame members. Additionally, they require the front end panel 1, which the Examiner likens to the claimed apron, to be mounted at the very front portion of the vehicle proximate the bumper, in front of the motor.

Conversely, the apron member and apron rail of the claimed invention ***extend around the motor compartment and attach back at the bulkhead*** (see also, Applicants’ specification [0081]; Figure 21). This patentable distinction is further confirmed by the amended recitation of independent claim 1 which recites, *inter alia*, ***the apron including a pair of wheel wells between the bulkhead and depending front portion coupled to the bulkhead*** (Figures 18-21). The Nakai et al. reference, which teaches the front end panel 1 being attached to side members 7 of the motor vehicle in front of the motor, does not teach or suggest this wrap around front end modular aspect of the claimed invention.

A still further distinction between the Nakai et al. reference and the claimed invention is apparent with respect to the C-shaped feature referred to by the Examiner at page 2, paragraph 2 of the October 20, 2004 Office Action. Specifically,

the Examiner references a “substantially C-shaped apron rail (26).” However, it is submitted that, at best, the Nakai et al. (apron rail) arguably has a C-shaped cross section. It does not have an overall C-shape which permits it to *substantially extend around the motor* of the vehicle and attach back at the bulkhead, as claimed (see also paragraph [0081]; Figures 16-21) showing isometric and top views of the exemplary C-shaped apron assembly.

In view of all of the foregoing, it is submitted that independent claim 1, as hereby amended, is patentable over Nakai et al.

Claim 3 relies on its dependency on amended independent claim 1 for patentability.

Claim 4 is an independent claim which has been amended like independent claim 1 to include the recitations of, *inter alia*, the apron substantially extending around the motor of the vehicle and including a pair of wheel wells between the bulkhead and the dependent front portion coupled thereto. Accordingly, independent claim 4, as amended, is patentable over the Nakai et al. reference for all of the reasons previously discussed in connection with amended independent claim 1.

Claims 6-9, 12 and 13 depend from amended independent claim 4 and through such dependency, are also patentable over the reference. The claims are not separately asserted to be patentable apart from such dependency.

Claim 14 is an independent method claim which has been amended to recite, *inter alia*, the apron generally extending around the motor of the vehicle and attaching back at the bulkhead. Therefore, for similar reasons as those previously discussed in connection with independent claims 1 and 4, claim 14 is also patentable over the Nakai et al. reference. Specifically, Nakai et al. does not teach or suggest the claimed bulkhead nor does it teach or suggest the apron assembly substantially surrounding the engine compartment of the motor vehicle and attaching back at the bulkhead, in order to provide a decoupled apron module for the vehicle front end.

Claims 15-16, 19 and 20 depend from amended independent claim 14 and through such dependency, are also patentable. The claims rely on such dependency for patentability.

Accordingly, Nakai et al. teaches away from the present invention which is designed to include a separate apron module attached to a central bulkhead thus decoupling the apron from other modules of the motor vehicle. This unique module design prevents the undesirable propagation of crash or impact energy

experienced by the apron module propagating to the remainder of the vehicle (paragraphs [0053], [0054] and [0081]; Figures 16-21). Claims 1, 3, 4, 6-9, 12-16, 19 and 20 are, therefore, patentable over Nakai et al. Reconsideration and allowance are requested.

Rejection of Claims 2 and 5 Under 35 U.S.C. § 103(a)

The Examiner rejects claims 2 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Nakai et al.

Claims 2 and 5 depend, respectively, from amended independent claims 1 and 4 and through such dependency, are also patentable over the Nakai et al. reference. Claims 2 and 5 rely on such dependency for patentability.

Rejection of Claims 10 and 17 Under 35 U.S.C. § 103(a)

The Examiner rejects claims 10 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Nakai et al. in view of U.S. Patent No. 5,628,096 (Watters et al.).

The Examiner states that Watters et al. teaches “mounting a transmission oil cooler (11) on a radiator” and thus, it would have been obvious to modify Nakai et al. to have “a transmission cooler mounted to the radiator and thus also in the opening, as taught by Watters et al.” (emphasis added). It is submitted that Watters et al. requires the transmission oil cooler to be attached, and thus supported by, the radiator. Therefore, while this may technically permit the oil cooler to be located “in the opening” (emphasis added) as stated by the Examiner, it does not teach or suggest, but in fact teaches away from, the oil cooler ***supported by the opening***, as claimed and disclosed in the present invention (see, for example, paragraph [0085] discussing transmission oil cooler 424 being fixed in third opening 418; Figure 17).

Accordingly, Watters et al. adds nothing to Nakai et al. to render claims 10 and 17 unpatentable. In addition to their dependency on independent claims 4 and 14, respectively, claims 10 and 17 are, therefore, further patentable over the references of record.

Rejection of Claims 11 and 18 Under 35 U.S.C. § 103(a)

The Examiner rejects claims 11 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Nakai et al. in view of U.S. Patent No. 5,975,625 (Simplicean).

Claims 11 and 18 depend, respectively, from amended independent claims 4 and 14. The claims recite, *inter alia*, the engine accessory being a battery

and the accessory attachment mount being an integrally formed battery hold-down, the battery supported in the battery hold-down. The claims are not separately asserted to be patentable apart from their dependency on amended independent claims 4 and 14, respectively.

In view of the foregoing amendments and remarks, it is submitted that all of the pending claims, claims 1-20, are patentable. Reconsideration and early allowance are requested.

Miscellaneous

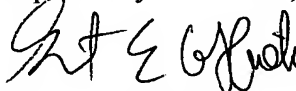
The prior art made of record but not relied upon but considered pertinent to Applicants' disclosure has been carefully reviewed, but was not considered as relevant as the art that was applied.

SUMMARY AND CONCLUSION

It is submitted that the foregoing amendments to independent claims 1, 4 and 14 place the claims into proper condition for the issuance of a Notice of Allowance. All of the dependent claims properly depend, respectively, from amended claims 1, 4 and 14.

In summary, Applicants respectfully submit that claims 1-20 are patentable over the references of record for all of the reasons stated hereinbefore and that the application is now in proper form for issuance of a Notice of Allowance. Reconsideration and early allowance are requested.

Respectfully submitted,



Grant E. Coffield
Reg. No. 52,758
Attorney for Applicants

Telephone Number:
(412) 566-6965